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# **Rockwell Collins, Inc (RCI)**

## **Technologies for**

### **Analog Spectral Processors (ASP)**

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# RCI Transitions Filter Technology Into DoD Radios

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- **Leader in the Development and Fielding of Radios for future DoD communication systems**
- **JTRS:**
  - **Cluster 1**
    - » Universal Transceiver including Pre-selector and IF filters
  - **Cluster AMF**
    - » Low power, high performance transceiver
    - » Pre-selectors and IF filters
  - **Cluster 5**
    - » Man Pack Radio
- **Joint Strike Fighter**
  - L-Band Pre-selector
- **FAB-T**
  - Antenna Group RF



***RCI Plans To Bid ASP. We Bring Advanced RF Front End Expertise.***

# DARPA Programs Provide Future Transition Opportunities

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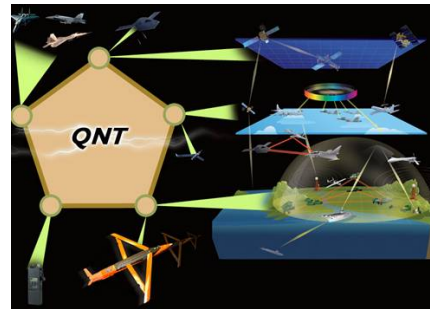
## neXt Generation (XG) Sensor



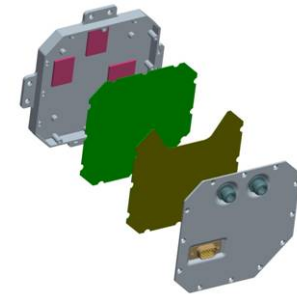
Frequency Range:	30 – 2500 MHz
Scan Rate:	18 GHz/sec (maximum)
Resolution BW:	12.5 KHz to 200 KHz
Power Consumption:	<2.5W
Size:	3.15 x 5.25 x 0.82 in
Weight:	12 oz
SFDR:	>72 dB
Input IP3:	-5 dBm
Noise Figure:	12 dB typical
Output:	FFT or Time Domain
Windowing:	5 selectable

***ASP can make them cheaper  
(and with better performance)***

## Quint Networking Technology (QNT)



- Multi-Waveform
- 3 Receivers
- 5W & 25 W
- Multi-Band
- Dual Channel



## Tactical Targeting Network Technology (TTNT)



- Low Latency
- High Throughput
- Linear, multi-carrier PA
- High Power Diplexer with small Footprint



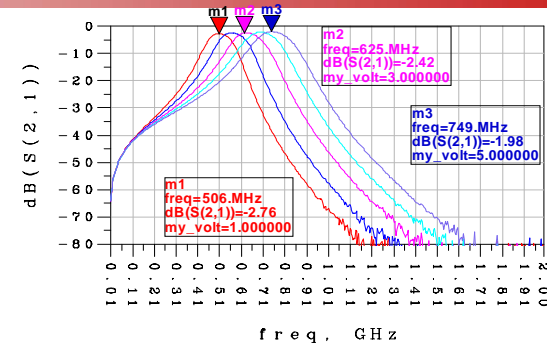
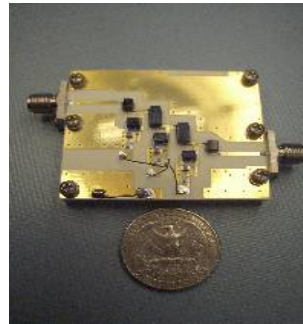
**Rockwell  
Collins**

# RCI Has Sponsored Advanced Tunable Filter Technologies

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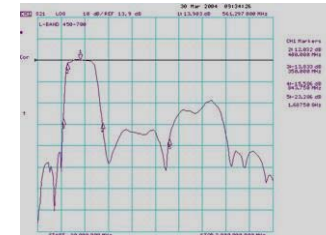
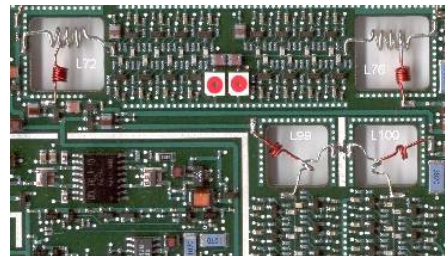
## Tunable Ferroelectric Filter

- 30MHz-2GHz
- 1.73 times tunability
- 200X Less Power dissipation
- 3X Parts Count Reduction
- 2.5X Less Board Area
- No tuning labor

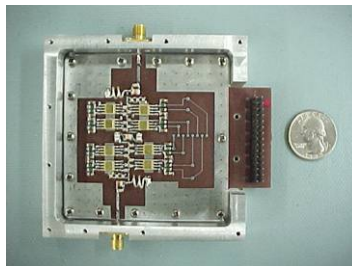


## Switched Capacitor Filter

- 30MHz-450 MHz
- Low Loss
- Low Cost
- High Power Handling
- High IP3
- JTRS CL1 Compliant



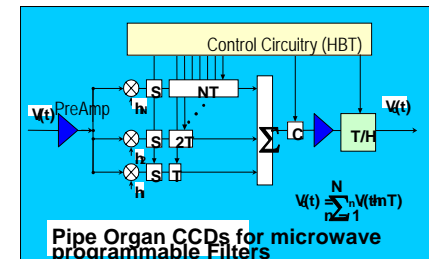
## Switched MEMS Filter



## Varactor Tuned Filter



## Tunable GaAs CCD Filter



**RCI Is Looking For Your Best Ideas As An ASP Teammate**

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